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5e**Penn E&R**

Environmental & Remediation, Inc.

September 14, 2001
4013-20001

Mr. Joseph McDowell (3HS21)
Remedial Project Manager
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103

Subject: EPA's September 12, 2001 Comment Letter Regarding the Remedial
Design/Remedial Action Work Plan for the Cinder/Slag Fill Area

Dear Mr. McDowell:

Penn Environmental & Remediation, Inc. (Penn E&R) is submitting this letter, on behalf of Liberty Property Limited Partnership and Liberty Property Trust (collectively "Liberty or LPT), in response to the EPA's September 12, 2001 letter that outlined comments the Agency had regarding its review of the revised document entitled "Remedial Design/Remedial Action Work Plan for the Cinder/Slag Fill Area Located on Liberty Property Trust's 2301 Renaissance Boulevard Property," dated August 27, 2001. Our responses to the review comments are provided in the same order and format.

EPA's Comment No. 1 - Section 4.3, Site Specific Focused Risk Assessment, Page 4-11

This section references the National Academy of Sciences 1983 report "Risk Assessment in the Federal Government: Managing the Process" for outlining the procedures to be followed in conducting the FRA. EPA's risk assessment guidance document should be the basis for developing the FRA. The procedures to be referenced and followed are:

USEPA. 1989. Risk Assessment Guidance for Superfund (RAGS): Volume 1: Human Health Evaluation Manual (HHEM), Part A, Interim Final. Office of Emergency and Remedial Response, Washington, DC. EPA/540/1-89/002.

USEPA. 1998. Risk Assessment Guidance for Superfund (RAGS): Volume 1: Human Health Evaluation Manual (HHEM), Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments. Office of Emergency and Remedial Response, Washington, DC. EPA/540/R-97033.

This section also indicates that the only receptor to be evaluated is the adult construction worker. The impacts to groundwater from soil should also be evaluated.

Liberty's Response to EPA's Comment No. 1

The Focused Risk Assessment will be completed following the procedures and methodologies outlined in the aforementioned reference documents.

Liberty will evaluate impacts to ground water using the post-excavation soil sample results. This evaluation will follow appropriate EPA guidance but will incorporate site-specific conditions that we believe eliminates the potential for contaminants to impact ground water. These site specific conditions include: 1) the source area will have been removed; 2) the water table in this area is located over 70 feet below the ground surface; and 3) this portion of the site will be developed with an asphalt parking lot/concrete parking garage that will significantly reduce infiltration through the former CSFA.

EPA's Comment No. 2 - Section 4.3, Site Specific Focused Risk Assessment, Page 4-9

The assumption of future risk scenarios is related to a subsurface construction worker in an industrial setting. For this scenario to be valid the property must have deed restrictions in place that prevent the property from being redeveloped as a residential or similar used (e.g., child-care facility) without additional remediation. If the FRA shows that risks for residential scenario are above acceptable levels, LPT will need to install the requisite deed restrictions supportive of the planned use.

Liberty's Response to EPA's Comment No. 2

Currently, the only and most appropriate exposure pathway to be included in the FRA for the CSFA is adult construction workers. The area of the CSFA will be covered with a concrete parking lot structure and an asphalt parking lot. If potential future exposure pathways exist in the future LPT will ensure that appropriate institutional controls are instituted to address this future potential risk.

EPA's Comment No. 3 - Section 4.3, Site Specific Focused Risk Assessment, Page 4-15, Analysis of Results

This section does not state whether a decision about risk and risk calculation will be based on RME or CTE. They are generating both sets of numbers, but it is not clear what is proposed if one number shows risk and the other does not. In addition, the text is confusing regarding carcinogenicity. The text uses the phrase "risk range" but does not identify a range in this section. It is assumed that the risk range referred to in this section refers to 1×10^{-4} to 1×10^{-6} cancer risk.

Liberty's Response to EPA's Comment No. 3

The analysis of the results of the FRA will be based on CTE. The risk range referred to in this section is 1×10^{-4} to 1×10^{-6} cancer risk.

EPA's Comment No. 4 - Section 4, Attachment 4B, Erosion & Sedimentation Plan, Page 4

The E&S Plan states that water which accumulates in the excavation will be pumped to an area southwest of the CSFA and allowed to infiltrate into the ground surface. They cite previous approval from EPA during other such excavations. This will be a relatively large excavation, so the potential for large quantities of water to accumulate are high, especially given that the determination of whether the excavation is clean or not is going to be performed post removal (i.e. Focused Risk Assessment) which may lead to the excavation remaining open longer. By potentially discharging large quantities of water (which may be contaminated) runs the risk of contaminating soil in an area not previously contaminated. It is recommended that an alternate means of addressing accumulated water be designed.

Liberty's Response to EPA's Comment No. 4

A 21,000-gallon temporary above ground storage tank will be mobilized to the site. Any water that accumulates in the CSFA that does not naturally infiltrate into the ground will be pumped into this tank. This water will then be sprayed onto the fill material in the CSFA for dust suppression purposes.

EPA's Comment No. 5 - Section 4.2.3, Post Excavation Soil Sampling, Page 4-7

EPA's initial comment requested an increased level of confirmation samples. The Penn E&R response indicated that the frequency was increased resulting in a total of 33 bottom samples and 15 side-wall samples. Figure 4-3 indicates 33 bottom sample locations, but only 14 side-wall locations. This discrepancy should be clarified.

Liberty's Response to EPA's Comment No. 5

Based on the dimensions of the CSFA, as it appears on Figure 4-3, there will only be 14 side-wall samples collected. The text in the work plan will be revised to reflect Figure 4-3. The number of sidewall and post-excavation samples that are ultimately collected will be determined in the field following the sample collection criteria discussed in Section 4.2.3.

EPA's Comment No. 5 - Section 4.2.3, Post Excavation Soil Sampling, Page 4-7

During post-excavation sampling, all sample locations should be staked and numbered so that if additional excavation is required, the locations resampled correspond to the hot spots.

Liberty's Response to EPA's Comment No. 6

All post-excavation soil sample locations will be staked and numbered so that they can be re-established in the event additional excavation is required.

EPA's Comment No. 7 - Section 4.2.3 Post Excavation Soil Sampling, Page 4-7

EPA requested incorporation of their split sample data into the work plan. Penn E&R incorporated the data, specifically into Table 2-2, and evaluated that data in Sections 2.2 Remedial Design Site Characterization Activities and 2.3 Compounds of Concern in the CSFA. Several omissions were made with respect to identification of contaminants exceeding screening criteria and identification of COCs. The lists on pages 2-7, 4-8, 4-10, 5-4, 5-17, 6-6, and 6-8 (besides being inconsistent with one another) are missing several chemicals. Based on RBCs and SSLs, the COCs would be: benzene, methylene chloride, 1,2-dibromo-3-chloropropane, acetophenone, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, dibenzofuran, fluorene, indeno[1,2,3-c,d]pyrene, naphthalene, 2-methylnaphthalene, acenaphthene, anthracene, carbazole, fluoranthene, pyrene, dieldrin, alpha-BHC, Aroclor 1254, antimony, arsenic, barium, cadmium, chromium, lead, manganese, mercury, iron, selenium, silver, thallium, and zinc.

Liberty's Response to EPA's Comment No. 7

The list of COCs in Sections 2, 4 and 5 should be different than those listed in Section 6 as they were developed using different evaluation scenarios. The COCs listed in Section 6 are those compounds that exceeded EPA RBCs and/or PADEP direct contact MSCs and which were identified for further evaluation with regards to potential health and safety concerns for the on-site personnel implementing the remediation.

The COCs listed in Sections 2, 4 and 5 are those compounds that exceeded EPA RBCs and SSLs and/or PADEP direct contact and soil-to-ground water MSCs. These COCs were established as they are the compounds for which the post-excavation soil samples will be analyzed and which will be included in the FRA.

The revised Remedial Design/Remedial Action Work Plan (RD/RAWP), which will be submitted to EPA under separate cover, will include the updated RBCs/SSLs identified in EPA's letter. Also, Sections 2, 4, 5 and 6 will be revised to reflect the additional COCs listed in EPA's Comment No. 7. Also, based on the RBCs included in the EPA's letter, mercury is not a COC as mercury was not present in any of the soil samples collected from the CSFA above 20 mg/kg. Additionally, Penn E&R does not believe that methylene chloride is a COC because its presence in the soil samples appears to be associated with laboratory introduced contamination.

EPA's Comment No. 8 - Section 4.2.3 Post Excavation Soil Sampling, Page 4-7

The plan indicates that samples will only be analyzed for the COCs. This appears to be contradicted by page 4-10, in which additional COCs may be identified. In any case, it is preferable to analyze for the full suite of contaminants, because the waste material is expected to be heterogeneous and the previous sampling may not have identified all chemicals of concern. Furthermore, there were COCs in each class of chemicals (VOCs, SVOCs, pesticides, PCBs, and metals), and it is probably no more cost-effective to analyze for a group of selected chemicals than to analyze for the standard suite of chemicals.

Liberty's Response to Comment No. 8

Liberty believes that the sampling completed to date provides an adequate characterization of the fill material in the CSFA. The list of COCs referenced in Sections 2, 4 and 5 of the RD/RAWP, which will be updated to reflect EPA's comment letter, are those compounds that were detected above EPA RBCs/SSLs and PADEP MSCs. Therefore, in accordance with standard environmental industry practice, these are the appropriate compounds for which the post-excavation soil samples should be analyzed. As such, Liberty requests that EPA approve the analysis of the post-excavation soil samples for the COC specifically listed in revised Section 2.3 (August 27th submittal), which will be updated to include those additional COCs listed in EPA's September 12th letter.

EPA's Comment No. 9 - Section 4.2.3 Post Excavation Soil Sampling, Page 4-7

The plan should consider evaluating background concentrations of metals.

Liberty's Response to Comment No. 9

The background concentrations for metals previously approved by the EPA will be included in the FRA.

EPA's Comment No. 10 - Section 4.2.3 Post Excavation Soil Sampling, Page 4-7

The work plan presents an argument for elimination of Arochlor - 1254 and dieldrin as COCs. The primary reason is the frequency of detection (i.e., 1 detection in 7 samples). The frequency of detection does not appear to be low enough to base the elimination of a contaminant, given the few samples collected and the heterogeneity of the waste deposited (municipal/household trash, bottles, slag, WAL, etc.)

Liberty's Response to Comment No. 10

As indicated above, the post-excavation soil samples will be analyzed for dieldrin and the PCB arochlor 1254.

EPA's Comment No. 11 - Section 5.3.6, Laboratory Analyses, Page 5-4

This section (and Table 5-1) omits dust monitoring, which was mentioned earlier as a proposed monitoring activity.

Liberty's Response to Comment No. 11

This Section of the RD/RAWP will be revised to reflect EPA's Comment No. 11.

EPA's Comment No. 12 - Section 5.4.8.1 Data Validation, Page 5-19/20

The procedure of resampling for suspected outliers is potentially objectionable. The material in question is expected to be heterogeneous, and therefore there may be high hits that are perfectly

valid even if dissimilar to the rest of the data. Resampling should only replace original results if it can be shown that either the laboratory or the sampler actually made an error that compromised the accuracy of the value.

Liberty's Response to Comment No. 12

No re-sampling will be completed without EPA's prior approval.

EPA's Comment No. 13 - Section 5.4.8.1 Data Validation, Page 5-19/20. Page 5-19, last bullet; page 5-20, last bullet

Outliers should not be discarded altogether (unless they are erroneous). Rather, outliers that are not part of a certain distribution should be evaluated separately as a hot spot or part of a different distribution; they should not be ignored.

Liberty's Response to Comment No. 13

EPA's comment No. 13 will be incorporated into the revised RD/RAWP.

EPA's Comment No. 14 - Section 6.0 Site Health and Safety Plan

Please indicate whether the cinder slag fill material has been screened for radiation.

Liberty's Response to Comment No. 14

Although there is no reason to believe that radioactive material is present in the CSFA, Section 6.0 will be revised to reflect that the CSFA will be scanned with a radiation survey meter prior to the initiation of the remedial activities.

EPA's Comment No. 15 - Section 6.2.3.4 PCBs, Page 6-9

Given the limited data available and the heterogeneous nature of the waste, it is not clear whether or not PCBs are "indicative of the chemical makeup." (The same is true of dieldrin.). This applies to page 2-6, last paragraph; page 2-8; page 6-3, 4th paragraph.

Liberty's Response to Comment No. 15

EPA's comment No. 15 will be incorporated into the revised RD/RAWP.

EPA's Comment No. 16 - Section 6.0, Tables 2-1A, 2-2, 6-1A, and 6-2

- 1. Most of the noncancer RBCs and SSLs were 10X too high for screening chemicals in combination (see Region III guidance on screening). Therefore, the screening numbers for trichlorofluoromethane, acetone, 2-butanone, toluene, acenaphthene, acetophenone (RBC only), anthracene, benzaldehyde, butylbenzylphthalate, dibenzofuran, fluoranthene, fluorene,*

- naphthalene, phenol, pyrene, aluminum, antimony, barium, beryllium, cadmium, copper, iron, manganese, nickel, selenium, silver, thallium, vanadium, zinc, and cyanide should be 10X lower.*
- 2. The DAF of 20 was not justified. It is possible that in this area, the DAF should be lower.*
 - 3. The benzene RBC should be 100.*
 - 4. The 2-methylnaphthalene RBC should be 4100; the SSL should be 2.2*
 - 5. The bis(2-ethylhexyl)phthalate RBC should be 410; the SSL should be 290.*
 - 6. The carbazole RBC should be 290; the SSL should be 0.47.*
 - 7. The chrysene RBC should be 780.*
 - 8. The dibutylphthalate RBC should be 20000; the SSL should be 500.*
 - 9. The dioctylphthalate RBC should be 4100; the SSL should be 240000.*
 - 10. The chromium RBC should be based on chromium VI and should be 610; the SSL should be 4.2.*
 - 11. The cobalt RBC should be 4100.*
 - 12. The lead RBC should be 400 or 750.*
 - 13. The mercury RBC should be 20.*
 - 14. See comment on Section 4.2.3, above, for a list of chemicals that therefore exceed RBCs or SSLs.*
 - 15. Tables 2-2 and 6-2: The RBCs and SSLs should also be 10X lower for carbon disulfide, styrene, 1,2,4-trichlorobenzene, xylene, 4-methylphenol, 1,1-biphenyl, and endrin.*
- Lastly, the comments on these screening comparisons also apply to the various screening comparisons shown throughout the document. Therefore, Section 2 should be revised to reflect the following:*

Page 2-1, last paragraph; page 6-7, 1st sentence: Antimony, barium, cadmium, chromium, iron, manganese, silver, thallium, and zinc also exceeded SSLs or RBCs.

Page 2-1, 1st paragraph; page 2-7, 2nd paragraph; page 6-3, last paragraph: There are screening levels for lead (400 mg/kg for residential, 750 mg/kg for industrial).

Page 2-2, 4th paragraph, states that the TPH level was "low;" the basis for this characterization should be included (e.g., low compared to what?).

Page 2-5, 4th paragraph; page 6-2, 3rd paragraph: Benz[a]anthracene also exceeded its RBC or SSL in sample CSFA-24. Manganese, thallium, and antimony exceeded screening levels in all samples.

Page 2-6, 4th paragraph; page 6-3, 3rd paragraph: Methylene chloride and dibromochloropropane were VOCs that also exceeded screening levels. Bis(2-ethylhexyl)phthalate did not exceed its RBC or SSL.

Page 2-7, 2nd paragraph; page 6-3, last paragraph: Cadmium exceeded its screening level in 4 samples, and manganese exceeded its screening level in all samples.

Liberty's Response to Comment No. 16

EPA's comment No. 16 will be incorporated into the revised RD/RAWP. However, as indicated earlier, Liberty believes that the presence of methylene chloride in the soil samples obtained from

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the CSFA is associated with laboratory introduced contamination. This is also true for 1,2-dibromo-3-chloropropane.

Liberty is in the process of incorporating EPA's comments into the RD/RAWP. The revised RD/RAWP will be submitted to EPA under separate cover early next week.

Sincerely,
PENN ENVIRONMENTAL & REMEDIATION, INC.

A handwritten signature in black ink, appearing to read 'Michael A. Christie', with a large, stylized flourish at the end.

Michael A. Christie, P.G.
Vice President

MAC:dlc
4013:EPA2RESPL

cc: Dave Minsker, PADEP
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